

In the claims:

Please amend the claims as follows:

1. (Amended) A method for the amplification of a nucleic acid sequence, comprising
the steps of:

providing a target nucleic acid sequence;

providing a first polynucleotide sequence having at least one donor chromophore, the
first polynucleotide sequence being complementary to at least a portion of the target nucleic
acid sequence;

A1 providing a second polynucleotide sequence having at least one acceptor
chromophore, the second polynucleotide sequence being complementary to a least a portion
of the target sequence;

performing polymerase chain reaction to amplify the target nucleic acid sequence;

hybridizing the first and second polynucleotide sequences to the target nucleic acid
sequence, such that when the first polynucleotide sequence and the second polynucleotide
sequence are hybridized to the target nucleic acid sequence, the donor chromophore and
acceptor chromophore are in an energy transfer relationship; and

irradiating the mixture to detect hybridizations of the first and second polynucleotide
sequences by fluorescence energy transfer from the one or more donor chromophores of the
first polynucleotide sequence to the one or more acceptor chromophores of the second
polynucleotide sequence.

16. (Amended) A method for the amplification of a nucleic acid sequence, comprising the steps of:

providing a target nucleic acid sequence;

providing a first polynucleotide sequence having at least one donor chromophore, the first polynucleotide sequence being complementary to at least a portion of the target nucleic acid sequence;

A2 providing a second polynucleotide sequence having at least one acceptor chromophore, the second polynucleotide sequence being complementary to at least a portion of the target sequence;

providing four different nucleoside triphosphates, a thermostable amplification enzyme, and two primers, wherein the primers are substantially complementary to the target polynucleotide sequence;

denaturing the target nucleic acid sequence to form single stranded nucleic acids at an appropriate temperature;

hybridizing the first and second polynucleotide sequences to the target nucleic acid sequence, such that when the first polynucleotide sequence and the second polynucleotide sequence are hybridized to the target nucleic acid sequence, the donor chromophore and acceptor chromophore are in an energy transfer relationship; and

irradiating the mixture to detect hybridizations of the first and second polynucleotide sequences by fluorescence energy transfer from the one or more donor chromophores of the first polynucleotide sequence to the one or more acceptor chromophores of the second polynucleotide sequence;

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elongating of the target polynucleotide sequence under conditions that the target
polynucleotide sequence is amplifiable.
